WASHINGTON STATE DEPARTMENT OF ECOLOGY
ENVIRONMENTAL ASSESSMENT PROGRAM
LABORATORY ACCREDITATION UNIT

APPLICATION FOR ENVIRONMENTAL LABORATORY ACCREDITATION

Reference: Chapter 173-50 WAC

SECTION I - GENERAL INFORMATION

1. **Legal Applicant** _____
(e.g., corporation, partnership, proprietor, owner)

2. **Name of Lab** _____

3. **Lab Mailing Address** _____
(number and street or PO Box)

_____ _____ _____
(city) (state) (zip code + 4)

4. **Location of Lab (if different than mailing address)** _____
(number and street, city, and state)

5. **Accreditation Point of Contact** _____ (_____) _____
(name and position) (area code) (telephone)

(_____) _____ _____
(area code) (fax number) (E-mail address)

6. **Actions for Which Application is Submitted** (check all that apply)

Accreditation	_____	(Complete Section II)
Recognition of Third Party Accreditation	_____	(Complete Sections II and III)
Recognition of Reciprocity Agreement	_____	(Complete Sections II and III)

7. **Application Status** Initial _____ Renewal _____ If renewal, Lab Accreditation Number (from Certificate): _____

8. **Laboratory Category.** Check the one category that best describes your laboratory:

Academic _____	Commercial (for hire) _____	State _____	Pretreatment _____
Industrial _____	Municipal (including county or district) _____	Federal _____	Tribal _____

Other (specify) _____

SECTION II - TECHNICAL INFORMATION

1. **Parameter and Method Identification and Fee Calculation.** Starting on Page 3, indicate parameters and methods for which accreditation is requested and the fee for each category. Additional parameters may be requested in each category by entering the parameters/methods on the blank lines at the end of each category. Likewise, multiple methods may be requested for a given parameter provided the analytical procedures are substantially different. For example, AA and ICP methods for metals are substantially different and both could be requested. On the other hand, EPA Method 340.2 and Standard Method 4500-F B+C for fluoride are essentially identical and only one should be requested. If accreditation is requested for two or more substantially different method per parameter, a separate fee per parameter is assessed for each. The maximum fee per category does not change.

   Recognition of Third Party accreditations. If applying for recognition of a third party's accreditation or a reciprocity agreement, the fee per parameter is usually not paid, but the parameters and methods **must be** indicated and they **must be** those accredited by the third party. Mark parameters for which recognition of a third party's accreditation or reciprocity agreement is requested by placing an **asterisk (*)** by the parameter.

   Renewals. If this is a renewal, check each parameter you want to request. You do not have to write the method and description unless there is a change.

2. **Performance Evaluation** In the "PE Sample Required" column, "**Yes**" indicates a performance evaluation sample must be analyzed and reported for that parameter twice annually. If accreditation for a parameter is by two or more "substantially different" methods, separate PE sample results must be submitted for each method. In the spaces below, list the PE studies the lab has done during the past 12 months. ***Include a copy of each evaluation report with this application.***

Date of Report	***Provider of Samples***	***Study Number***
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. **Certificate of Applicant** I certify I have read Chapter 173-50 WAC as it pertains to accreditation of the laboratory identified in Section I of this application and am aware of no misrepresentations concerning that laboratory in this application.

_____ _____ _____
(signature of applicant or designated representative) (position) (date)

4. **Submission**. Make sure all personnel and equipment sheets are enclosed. If this is a renewal application, only changes to previous personnel and equipment entries must be included. Send the completed application, fee, and PE evaluation reports to the address below. Please make check, money order, or purchase order payable to the Washington State Dept of Ecology.

Mailing Address:	**Department of Ecology** **Cashiering Section** **PO Box 5128** **Lacey, WA 98509-5128**	**Shipping Address:**	**Department of Ecology** **Cashiering Section** **300 Desmond Drive** **Lacey, WA 98503**
Telephone: (360) 407-7094			

Send any updates or revision of the lab's Quality Assurance Manual to:

Mailing Address:	**Department of Ecology** **Lab Accreditation Unit** **PO Box 488** **Manchester, WA 98353**	**Shipping Address:**	**Department of Ecology** **Lab Accreditation Unit** **2350 Colchester Dr.** **Manchester, WA 98353**
Telephone: (360) 895-6144		**FAX: (360) 895-6180**	**E-mail: cosc461@ecy.wa.gov**

Parameter	PE Sample Required	Description	Method No.	Source (incl. edition, yr)

Chemistry I - General. Fee/parameter/method is $55. Maximum fee is $1000. **Calculated Fee** **$**

__ Acidity				
__ Alkalinity	**Yes**			
__ Ammonia	**Yes**			
__ Anionic Surfactants				
__ Biochemical Oxygen Demand (BOD) & Carbonaceous BOD (CBOD)	**Yes**			
__ Bromide				
__ Calcium	**Yes**			
__ Chemical Oxygen Demand (COD)	**Yes**			
__ Chloride	**Yes**			
__ Chlorine Total Residual	**Yes**			
__ Color				
__ Cyanide Total	**Yes**			
__ Dissolved Oxygen				
__ Fluoride	**Yes**			
__ Hardness Total	**Yes**			
__ Hexane Extractable Material	**Yes**			
__ Magnesium	**Yes**			
__ Nitrate	**Yes**			
__ Nitrate + Nitrite				
__ Nitrite				
__ Nitrogen Total Kjeldahl	**Yes**			
__ Oil & Grease	**Yes**			
__ Orthophosphate	**Yes**			
__ pH	**Yes**			
__ Phenolics Total	**Yes**			
__ Phosphorus Total	**Yes**			
__ Potassium	**Yes**			
__ Salinity				
__ Silica				
__ Sodium	**Yes**			
__ Solids Total	**Yes**			
__ Solids Total Dissolved (TDS)	**Yes**			
__ Solids Total Suspended (TSS)	**Yes**			
__ Solids Total Volatile				
__ Specific Conductance	**Yes**			

Continued on next page

Parameter	PE Sample Required	Description	Method No.	Source (incl. edition, yr)

Chemistry I (*continued*)

__ Sulfate	**Yes**			
__ Sulfide				
__ Sulfite				
__ Total Organic Carbon	**Yes**			
__ Total Organic Halides				
__ Total Petroleum Hydrocarbons	**Yes**			
__ Turbidity	**Yes**			
__ _____				
__ _____				
__ _____				
__ _____				
__ _____				

Chemistry II - Trace Metals. Fee/parameter/method is $55. Maximum Fee is $850. **Calculated Fee** **$**

__ Aluminum	**Yes**			
__ Antimony	**Yes**			
__ Arsenic	**Yes**			
__ Barium	**Yes**			
__ Beryllium	**Yes**			
__ Cadmium	**Yes**			
__ Chromium	**Yes**			
__ Cobalt	**Yes**			
__ Copper	**Yes**			
__ Iron	**Yes**			
__ Lead	**Yes**			
__ Manganese	**Yes**			
__ Mercury	**Yes**			
__ Molybdenum	**Yes**			
__ Nickel	**Yes**			
__ Selenium	**Yes**			
__ Silver	**Yes**			
__ Strontium	**Yes**			
__ Thallium	**Yes**			
__ Tin				
__ Titanium	**Yes**			
__ Vanadium	**Yes**			
__ Zinc	**Yes**			
__ _____				
__ _____				
__ _____				
__ _____				
__ _____				
__ _____				

_____

Parameter	PE Sample Required	Description	Method No.	Source (incl. edition, yr)

Organics I - GC, HPLC Methods. Fee/parameter/method is $100. Maximum fee is $850. Calculated Fee $

NOTE: Methods under parameter titles are for example only. Others can be requested.

__ Purgeable Halocarbons (601)	**Yes**			
__ Purgeable Aromatics (602)	**Yes**			
__ Acrolein/Acrylonitrile- (603)				
__ Phenols (604)				
__ Benzidines (605)				
__ Phthalate Esters (606)				
__ Nitrosamines (607)				
__ Organochlorine Pesticides (608)	**Yes**			
__ PCBs (608)	**Yes**			
__ Nitroaromatics & Isophorone (609)				
__ Polynuclear Aromatic Hydrocarbons (610, 8310)				
__ Haloethers (611)				
__ Chlorinated Hydrocarbons (612)				
__ Organophosphorus Pesticides (614)				
__ Chlorinated Herbicides (615)				
__ Total Petroleum Hydrocarbons * (NWTPH-Dx)	**Yes**			
__ Total Petroleum Hydrocarbons * (NWTPH-Gx)	**Yes**			
__ _____				
__ _____				
__ _____				

* Department of Ecology, "Analytical Methods for Total Petroleum Hydrocarbons," Publication No. ECY 97-602, June 1997. Available from: (1) Ecology Publications Office at (360) 407-7472 or E-mail ecypub@ecy.wa.gov (2) Internet: http://www.wa.gov/ecology/tcp/cleanup.html.

Parameter	PE Sample Required	Description	Method No.	Source (incl. edition, yr)

Organics II - GC-Mass Spec. Fee/parameter/method is $300. Maximum fee is $900. **Calculated Fee** **$**

__ Dioxin (2,3,7,8 Tetra-chlorodibenzo-p-dioxin) (613)	**Yes**			
__ Purgeable (volatile) Organics (624, 8260)	**Yes**			
__ Semivolatile Organics (625, 8270)	**Yes**			
__ _____				
__ _____				

Radioactivity. Fee/parameter/method is $125. Maximum fee is $1200. **Calculated Fee** **$**

__ Gross Alpha	**Yes**			
__ Gross Beta	**Yes**			
__ Cesium 134	**Yes**			
__ Cesium 137	**Yes**			
__ Cobalt 60	**Yes**			
__ Radium 226	**Yes**			
__ Radium 228	**Yes**			
__ Tritium	**Yes**			
__ Total Uranium	**Yes**			
__ Iodine 131	**Yes**			
__ Strontium 89	**Yes**			
__ Strontium 90	**Yes**			
__ Gamma	**Yes**			
__ _____				
__ _____				
__ _____				
__ _____				

Microbiology. Fee/parameter/method is $205. Maximum fee is $600. **Calculated Fee** **$**

__ Fecal Coliform				
__ Total Coliform				
__ Fecal Streptococcus				
__ Enterococcus				
__ E. coli				
__ _____				
__ _____				
__ _____				
__ _____				

Bioassay. Fee/parameter/method is $200. Maximum fee is $1250. Calculated Fee $

Acute Methods – EPA/600/4-90/027F

__ Water flea – *Daphnia pulex*	EPA/600/4-90/027F
__ Water flea – *Daphnia magna*	EPA/600/4-90/027F
__ Water flea – *Ceriodaphnia dubia*	EPA/600/4-90/027F
__ Fathead minnow – *Pimephales promelas*	EPA/600/4-90/027F
__ Rainbow trout – *Oncorhynchus mykiss*	EPA/600/4-90/027F
__ Brook trout – *Salvelinus fontinalis*	EPA/600/4-90/027F
__ Sheepshead minnow – *Cyprinondon variegatus*	EPA/600/4-90/027F
__ Inland silverside – *Menidia* spp.	EPA/600/4-90/027F
__ Atlantic mysid – *Mysidopsis bahia*	EPA/600/4-90/027F
__ Pacific mysid – *Holmesimysis costata*	EPA/600/4-90/027F

Chronic Freshwater Methods – EPA/600/4-91/002

__ Fathead minnow – *Pimephales promelas*	EPA 1000.0
__ Fathead minnow – *Pimephales promelas* Teratogenicity	EPA 1001.0
__ Water flea – *Ceriodaphnia dubia*	EPA 1002.0
__ Green alga – *Selenastrum capricornutum*	EPA 1003.0

Chronic Saltwater Methods – EPA/600/4-91/003

__ Sheepshead – *Cyprinodon variegatus*	EPA 1004.0
__ Inland silverside – *Menidia beryllina*	EPA 1006.0
__ Atlantic mysid – *Mysidopsis bahia*	EPA 1007.0
__ Sea urchin fertilization – *Arbacia punctulata*	EPA 1008.0

West Coast Methods – EPA/600/R-95/136

__ Pacific oyster – *Crassostrea gigas*	EPA 1005.0
__ Mussels – *Mytilus* sp.	EPA 1005.0
__ Top smelt – *Atherinops affinis*	EPA 1006.0
__ Pacific mysid – *Holmesimysis costata*	EPA 1007.0
__ Echinoderms – *Strongelocentrotus purpuratus*	EPA 1008.0
__ Echinoderms – *Dendraster excentricus*	EPA 1008.0
__ Giant kelp – *Macrocystis pyrifera*	EPA 1009.0

ASTM Methods

__ Bioconcentration, Fishes & Saltwater Bivalve Mollusks	ASTM E 1022
__ Marine/estuarine Amphipods – (list species)	ASTM E 1367
__ Echinoderm Embryos – (list species)	ASTM E 1563
__ Bioaccumulation of Sed. Contaminants by Benthic Invertebrates	ASTM E 1688
__ Freshwater Invertebrate (Sediment) – (list species)	ASTM E 1706

PSEP Methods

__ *Ampelisca abdita*	PSEP 1995
__ *Eohaustorius estuarius*	PSEP 1995
__ *Rhepoxynius abronius*	PSEP 1995
__ *Crassostrea gigas*	PSEP 1995
__ *Mytilus* sp.	PSEP 1995
__ *Dendraster excentricus*	PSEP 1995
__ *Strongylocentrotus* spp.	PSEP 1995
__ *Neanthes arenaceodentata*	PSEP 1995
__ Microtox™, Organic Sediment Extract	PSEP 1995
__ Microtox™, Saline Sediment Extract	PSEP 1995

WDOE and Other Methods

__ Static Salmonid Dangerous Waste	WDOE 80-12 Part A
__ Rat Oral Acute Dangerous Waste	WDOE 80-12 Part B
__ _____	_____
__ _____	_____
__ _____	_____

Sediment. Fee/parameter/method is $100. Maximum fee is $500. **Calculated Fee** **$**

NOTE: The only program known to require accreditation for sediments is the Puget Sound Estuary Program (PSEP) which requires use of accredited labs for reporting samples analyzed for Puget Sound Dredged Disposal Analysis (PSDDA) projects. Do not request accreditation unless there is a specific requirement .

__ Antimony _____
__ Arsenic _____
__ Cadmium _____
__ Copper _____
__ Lead _____
__ Mercury _____
__ Nickel _____
__ Silver _____
__ Zinc _____
__ Polycyclic Aromatic Hydrocarbons _____
__ Base/Neutral and Acid (Semivolatile) Organics _____

__ _____ _____

__ _____ _____

__ _____ _____

__ _____ _____

TOTAL FEE CALCULATION

Base Fee Calculation.

The "base fee" below is the unadjusted fee for a one-year accreditation period. Out-of-state labs will be billed for the actual travel costs after the on-site audit.

- If the lab is applying only for direct accreditation from the Department of Ecology, add the "calculated fees" from above and enter sum below.
- If the lab is applying only for recognition of reciprocity or of a third party accreditation, enter $300 below. Note: Some reciprocity agreements specify an amount other than $300; contact the Laboratory Accreditation Unit for the amount.
- If the lab is applying for some parameters through direct accreditation, and some through recognition of a third party/reciprocity agreement, add $300 to the sum of the "calculated fees"; enter sum below. Note: Some reciprocity agreements specify an amount other than $300; contact the Laboratory Accreditation Unit for the amount.

Base Fee | **$**

Adjusted Fee Calculation.

Under the provisions of WAC 173-50-190(8), accreditation fees are adjusted every two years based on the Implicit Price Deflator for State and Local Governments, a document published by the U.S. Department of Commerce. The price deflator for 1999 – 2000 allowed a fee increase of 7.37%, but because of the Initiative 601 limitation that, in a given year, fee increases not exceed the fiscal growth factor, fees have been increased only 2.87% effective April 1, 2001. This, combined with a 5.13% increase in 1996 and a 4.05% increase in 1998, makes the total increase 12.5% over the fees given in WAC 173-50 and on the application.

The fee to be submitted to Ecology's Fiscal Office is the total base fee above, multiplied by 1.125. The amount can be **rounded to the nearest dollar.** This is identified below as the **Adjusted Fee,** the fee to be submitted to Ecology.

Base Fee _____ x 1.125 = **Adjusted Fee** | **$**

5. Personnel Data. A copy of the following (or a comparable substitute) should be completed for managers, supervisors, and other key personnel (use additional sheets if necessary)

Name _____ **Present Position** _____

Supervisory Position _____ _____ **Date Hired** _____
(yes) (no)

Major Duties (be specific in terms of duties in analysis of parameters for which accreditation is requested).

_____

_____

_____

_____

Formal Education

Name of Academic Institution	Dates Attended From	To	Major	Minor	Degree/Date
_____	_____		_____	_____	_____
_____	_____		_____	_____	_____

Special Courses. Indicate any short courses, professional training sessions, etc., which prepared the employee for the major duties described above.

Name of Course	Presented By	Dates Attended From	To
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	

Experience. Previous analytical lab employers, most recent first. Add Additional pages if necessary.

Employer _____ Position _____

Location _____ Dates Employed _____

Major Duties _____

Employer _____ Position _____

Location _____ Dates Employed _____

Major Duties _____

Continued on next page

5. Personnel Data *Continued*

Fill in the following sheet (or a substitute) for all technical personnel in the lab. Use additional sheets if necessary.

Type Position	Name	Technical specialty	Date Hired	Summary of education/Experience (e.g., BS Chem 78, 12 yrs anal lab)
Lab Manager				
QA Coordinator				
Supervisors				
Professional/ Technical Staff				

6. Equipment Data. Indicate major items of analytical equipment present in the lab and used in the methods for which accreditation is requested. Use additional sheets if necessary to add items. Equipment inventories providing essentially the same information may be substituted for the list below.

Type of Equipment	Manufacturer	Model No.	Qty.
Atomic Absorption Spectrophotometer			
Direct Aspiration			
Furnace			
Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES)			
ICP-Mass Spectrometer (ICP-MS)			
Gas Chromatographs (identify GC associated with each detector)			
Flame Ionization Detector			
Electron Capture Detector			
Photoionization Detector			
Hall Detector			
Halide Specific Detector			
Nitrogen/Phosphorus Detector			
Flame Photometric Detector			
Other Detector (specify)			
GC/Mass Spectrometer			
Spectrophotometer			
UV-Visible			
IR			
Fourier Transform IR			
pH meter			
Turbidimeter			
Flame Photometer			
Proportional Counter			
Scintillation Counter			

Continued on next page

6. Equipment Data. *Continued*

Type of Equipment	Manufacturer	Model No.	Qty.
High Performance Liquid Chromatograph graph (HPLC) with:			
Ultraviolet detector			
Fluorescence detector			
Other detector (specify)			
Mercury Analyzer			
Ion Chromatograph			
Spectrofluorometer			
X-Ray Diffraction Unit			
Microscope			
General Purpose			
Polarized Light			
Phase Contrast			
Scanning Electron			
Transmission Electron			
Other (specify)			
Analytical Balance			
Conductivity Meter			
Dissolved Oxygen Meter			

SECTION III - THIRD PARTY ACCREDITATION OR RECIPROCITY

Laboratories applying for recognition of accreditation by a third party or an existing reciprocity agreement **must**:

- complete Sections I, II, and III
- submit copies of:
  - (1) the third party **accreditation/license/certificate** including the **scope of accreditation**
  - (2) the third party's **on-site audit report**
  - (3) the third party's **review of the lab's QA Manual**
  - (4) the most recent evaluation reports of **PE sample analysis results** for the applicable parameters

This completed application and an administrative fee in the sum of $300.00 **or** the fee specified in the applicable reciprocity agreement (adjusted for inflation as on Page 7) should be submitted to the Department of Ecology Cashiering Section. See page 2 for addresses.

Name and Address of Accrediting Agency _____

_____

_____

_____

Point of Contact at Accrediting Agency _____

(_____) _____
(telephone)

Effective Date of Accreditation _____ **Expiration Date of Accreditation** _____

Agreement of Applicant to Furnish Evidence of Continuing Accreditation by Third Party

I agree to furnish evidence of continuing accreditation/licensure/certification by the third party identified above for the entire period of accreditation by Department of Ecology, and I understand that failure to do so could result in revocation of Department of Ecology accreditation for the parameters/methods so recognized. If the third party accreditation is scheduled to expire before Ecology's accreditation expires, I will provide evidence that the third party accreditation is renewed.

_____ _____
(signature of applicant or designated representative) (position)

_____
(date)

NOTE: After review by the Laboratory Accreditation Unit, the applicant will be notified if the third party accreditation will be recognized in the State of Washington for all parameters/methods requested in the application. If there are parameters/methods not covered by the third party accreditation, the applicant will be advised and may submit an additional application for those parameters/methods.